



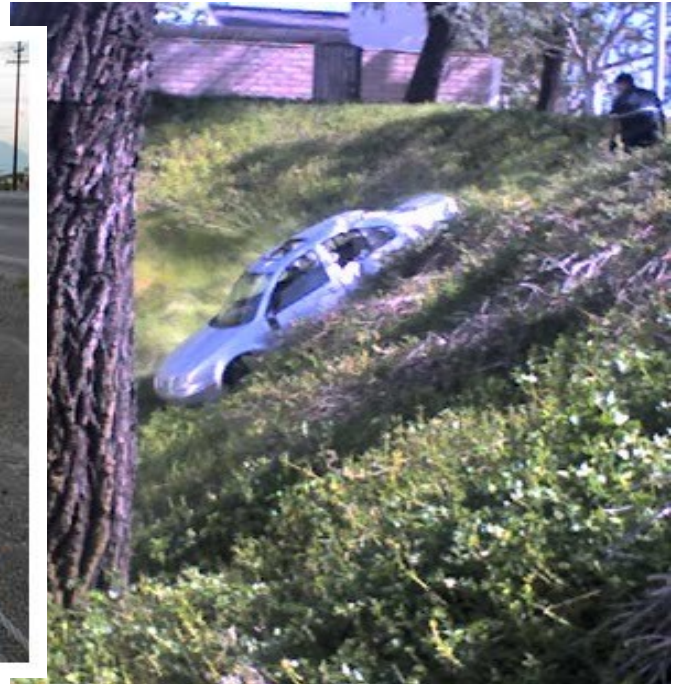
GEORGIA ROADS

A Newsletter of Georgia's Local Technical Assistance Program

Vol. 20, No.14 Winter 2009



"BETTER ROADS THROUGH COOPERATION"



Reducing Roadway Departures

Inside this issue:

LTAP Information and Event Calendar	2
Meet the new Advisory Committee	3
Retroreflectivity	5
FHWA Information	6
Test Your Knowledge	7
LTAP Lending Library	8
Super Speeder	9

Think about this...By the time you have finished reading this article, one more person will have died as a result of a run-off-the-road crash. Every 21 minutes a highway death occurs as a result of a lane departure. A roadway departure crash is defined as a non-intersection crash which occurs after a vehicle crosses an edge line or a center line, or otherwise leaves the traveled way. According to the Federal Highway Administration (FHWA), of the more than 42,000 people killed on our nation's highways annually, over 25,000—almost 60 percent—died in crashes caused when their vehicles veered from the lane. In some cases, the vehicle crossed the center-line and was involved in a head-on crash or opposite direction sideswipe. In others, the vehicle left the roadway to roll over or impact one or more natural or man-made objects, such as trees, utility poles, bridge walls, embankments, or guardrails.

Nearly four out of every 10 fatal motor vehicle crashes—more than 16,000 a year—involve a single vehicle leaving its lane or the roadway, and there are more than twice as many fatal lane-departure crashes on rural roads than on urban roads. Some 42 percent of fatal lane departure crashes occur on curves (50 percent in rural areas), and the life-threatening events most likely to occur are rollovers (42 percent) and collisions with trees (25 percent). In 2006, Georgia had over 940 lane departure fatalities accounting for 56% of total fatalities.

There are three key objectives in reducing the number of fatalities attributable to roadway departure crashes:

1. Keep vehicles in their lanes and on the road.
2. Minimize the likelihood of crashing into an object or overturning if the vehicle travels off the shoulder.
3. Reduce the severity of the crash

(continued p. 4)



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The Local Technical Assistance Program (LTAP) is a nationwide effort financed jointly by the Federal Highway Administration (FHWA) and individual state departments of transportation and/or universities. Its purpose is to disseminate the latest state-of-the-art technologies for roads, highways and bridges to municipal and county highway and transportation personnel.

The Georgia LTAP is supported by FHWA and the Georgia Department of Transportation. The Georgia Roads Newsletter is one of the LTAP's activities. The opinions, findings or recommendations expressed in this newsletter are those of the Georgia LTAP Center and do not necessarily reflect the views of the FHWA or the Georgia Department of Transportation.

The Georgia Roads Newsletter is distributed free of charge to counties, cities, towns and others with transportation responsibilities.

EVENT CALENDAR

DATE

EVENT

February 9-10, 2010 **Traffic Impact Analysis**
 Macon, GA

Work Zone Traffic Control
 Call to set up this workshop at your location

Safety 101
 Call to set up this workshop at your location

ACCG Annual Meeting and County Buyers Mart
 Plan to attend this spectacular event April 24-26, 2010, Savannah Civic Center, Georgia. For more information and to register log onto <http://www.accg.org>

APWA Georgia Chapter Certificate of Public Works Conference

The conference has been designed to equip public works officials with the knowledge and skills they need to provide outstanding services to their clients in today's local government setting. Check out the website www.georgia.apwa.net for more information and to register

APWA Georgia Chapter 25th Equipment Show

Come join us for a day of browsing the best equipment in our industry! Live Equipment Demonstrations and FREE BBQ lunch for all. February 3, 2010, Perry Fair Ground, Perry, Georgia. Contact Steve Pettis or visit the website at <http://georgia.apwa.net/events/5318/>



From the Director

Our Local Technical Assistance Program (LTAP) is starting the New Year with a new advisory committee. Before I introduce the new committee members to you, on behalf of the LTAP staff, I want thank those that have left the committee for their service. We rely on input from our advisory committee to guide the direction of the program and the training that we provide. On many occasions, we have made decisions concerning an activity or course based on guidance from the advisory committee.

Members who have left the advisory committee are:

Barbara Bennett, Candler County Public Works/Landfill
Keith Braswell, Bibb County Engineering
Charles McGiboney, Rockdale County Public Works & Engineering
David Painter, FHWA
Jeff Geisen, City of Cartersville
Dan Buckingham, R/W and Utilities, Pickens County

We welcome to the committee:

Mikita Browning, City of Atlanta-Watershed Management
Danny Ward, Moultrie
Derrell Newman, Bryan County
Herbert Humphrey, East Point
Terrence Simpkins, DeKalb County
Chuck Mathis, Dougherty County
Lokesh Hebbani, FHWA

I also want to thank those members that continue to serve:

Matthew Hicks, Association of County Commissioners of Georgia
Georgene Geary, State Materials & Research Engineer, GDOT
Eric Pitts, Asst. State Maintenance Engineer, GDOT
Michael Joyner, APWA-Georgia Chapter

Finally, I want to thank all of you for your dedication to LTAP. It is understood that 2008 and 2009 were challenging years for Georgia's LTAP. Budget shortfalls have affected many agencies and programs including LTAP. There were times when the LTAP staff was not sure of the fate of the program. However, it is continuing due to many of you who have let your leaders and representatives know the value of the program. With your support, LTAP will continue to provide quality assistance and employee development opportunities for Georgia's public works professionals.



I can explain...

Roadway Departures continued...

Reducing Lane Departures

There are several low-cost, quick-implementation strategies that can help keep vehicles on the road and in their lanes:

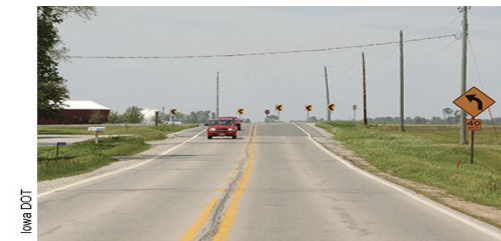
Rumble Strips

Rumble strips add sound and vibration to the visual benefits of painted markings when traversed by vehicle tires.



Curve Delineation

Curve delineation can include shoulder treatments, such as chevrons, large arrow signs, or delineators on guardrails; improved curve warning signs, such as signs with flashing beacons; or innovative markings such as warning arrows on the pavement prior to the curve.



Remove or relocate objects

Regardless of the reason that a vehicle leaves the roadway, a roadside free of fixed objects with stable, flattened slopes helps reduce crash severity. Two of the most common fixed objects that are encountered along the roadside—and which lead to the highest number of fatalities—are trees and utility poles.

Eliminate shoulder drop-offs

Roadway departure crashes can be reduced if a vehicle that enters the shoulder area is allowed to safely recover. One solution to this problem is to form a tapered transition at the edge of the paved surface called the “safety edge,” which helps errant vehicles maintain stability particularly on roadway re-entry.



Source: American Association of State Highway and Transportation Officials. Driving Down Lane Departure Crashes, 2008. <http://www.t2.unh.edu/nltapa/Pubs/PLD-1.pdf>

The FHWA's Roadway Departure Safety Program (http://safety.fhwa.dot.gov/roadway_dept/#facts) provides important information for transportation practitioners, decision makers, and others to assist them in preventing and reducing the severity of roadway departure crashes. FHWA uses the Fatal Analysis Reporting System (FARS) to compute statistics on roadway departure crashes. The [FARS Query System](http://www-fars.nhtsa.dot.gov/Main/index.aspx) (<http://www-fars.nhtsa.dot.gov/Main/index.aspx>) enables users to perform their own custom queries, such as case listings, univariate and cross tabulations, as well as the ability to download subsets of data based on selected fields of interest, and a library of frequently requested tables. Visit the site to learn more.



Guidance for the Design and Application of Shoulder and Centerline Rumble Strips

Shoulder rumble strips have demonstrated effectiveness in reducing lane-departure crashes on rural freeways. They've proven to be cost-effective countermeasures, state DOTs and local agencies want to expand the use of rumble strips along the shoulders of divided and undivided highways and along the centerline of undivided highways including two-lane roadways. However, installing rumble strips to reduce run-off-the-road or centerline crossover crashes, with no consideration of impacts to other users, may lead to unintended outcomes.

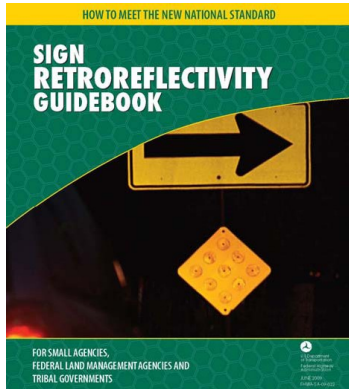


Some of the unresolved issues to consider with installing either centerline or shoulder rumble strips include:

- Minimum dimensions of the rumble strips necessary for effective vehicular warning with least potential for adverse effects
- Optimal placement, including minimum criteria for lane and shoulder widths
- Optimal longitudinal gaps in rumble strips to provide accessibility for cyclists while maintaining the effectiveness in reducing lane departures
- Effectiveness and alternative designs for various speed
- Physical design of rumble strips with respect to "rideability" for motorcyclists and bicyclists

The shoulders of the highway system are a diverse environment. They are used by bicyclists, pedestrians, mail carriers, school buses, and farm vehicles. In addition, there is great variability in shoulder widths, materials, and pavement depths, making uniform application difficult. The optimal placement of the rumble strips in relation to the shoulder stripe is also in question. Further, shoulders are used for lane shifts during construction and maintenance operations, requiring vehicles to drive over the rumble strips resulting in driver discomfort and potential operational problems.

Sign Retroreflectivity Toolkit



Adequately maintained traffic signs and pavement markings help improve highway safety, especially during the nighttime. The retroreflective properties of traffic signs bounce light from vehicle headlights back toward the vehicle and the driver's eyes, making the signs appear brighter and easier to see and read at night. Because the retroreflective properties of traffic control

devices deteriorate over time, agencies need to manage the maintenance of their signs and pavement markings.

Recent retroreflectivity standards are set forth in the Manual on Uniform Traffic Control Devices (MUTCD) and compliance dates are coming up soon. Did you know that by January of 2012, all agencies must implement a sign maintenance program that addresses the nighttime visibility of their signs? Great news—there's a toolkit geared to help and it is FREE. The Sign Retroreflectivity Toolkit provides information that will assist small and medium-sized agencies without traffic engineering staff to meet the new Federal requirements for maintaining traffic sign retroreflectivity. This toolkit contains two documents: One is a hard

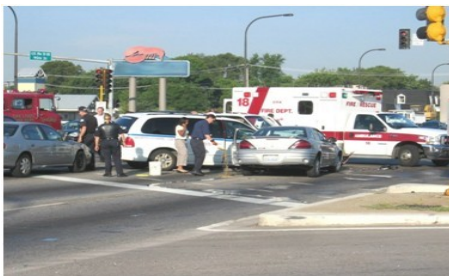
copy of the computer-based package known as the "Guidebook" The second is a stand-alone computer based package on a compact disc (called the "Toolkit") that contains much more information, resources, and automated on a compact disc (called the "Toolkit") that contains much more information, resources, and automated features. These documents are designed to assist small - and medium-sized agencies in making informed decisions before implementing a retroreflectivity maintenance program while considering resource limitations. The two documents include common features such as: Simple step-by-step approach; inspection procedures and budget estimating tool. Visit www.fhwa.dot.gov/retro for more information.

ORDER YOUR FREE COPY TODAY

Contact: Georgia LTAP Center, ltap@dot.ga.gov, or call 404.463.7886.



Intersection Safety



Two PowerPoint presentations with speaker notes on *Intersection Safety* – a 30-minute and a 60-minute version are now available on the FHWA website at <http://safety.fhwa.dot.gov/intersection/resources/intsafpst092609/>. They represent the fifth and final standard presentations in a series that has been prepared for the Office of Safety, with the others being *Safety at Signalized Intersections*, *Safety at Un-signalized Intersections*, *Safety Aspects of Roundabouts*, and *Red-Light Running*, and are available on the safety website. These presentations cover the nature and magnitude of the problem, applicable crash data, typical crash types, countermeasures available to address intersection crashes, and identification of relevant reference materials. The presentations have been developed for use by FHWA staff, state or local personnel, or anyone else asked to make a presentation on general intersection safety. They can be tailored to any desired length and for any audience.

If you have any questions or need additional information, please contact George Rice via phone @George E. (Ed) Rice, Jr. Intersection Team Leader Office of Safety Design, HSSD, 202.366.9064.





FHWA Offers Help to States Evaluating Locally Owned Bridges for Scour

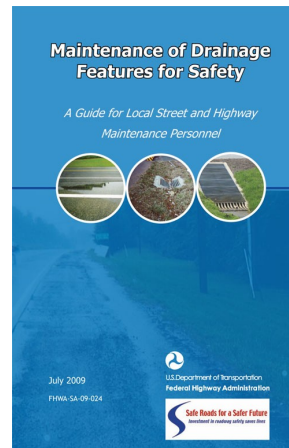


Over the past few months, the Federal Highway Administration (FHWA) has been working with a number of States to help facilitate scour evaluation of their bridges, an important component of the National Bridge Inspection Standards (NBIS). Scour, which is the removal of sediment or sometimes rock that compromises the integrity of a bridge, has been identified as one of the three main causes of bridge failure.



For additional information about bridge scour, please contact: Dan Ghere, FHWA Resource Center @ 708.283.3557, dan.ghere@dot.gov or Cynthia Nurmi, 410.562.3908, cynthia.nurmi@dot.gov

Maintenance of Drainage Features for Safety

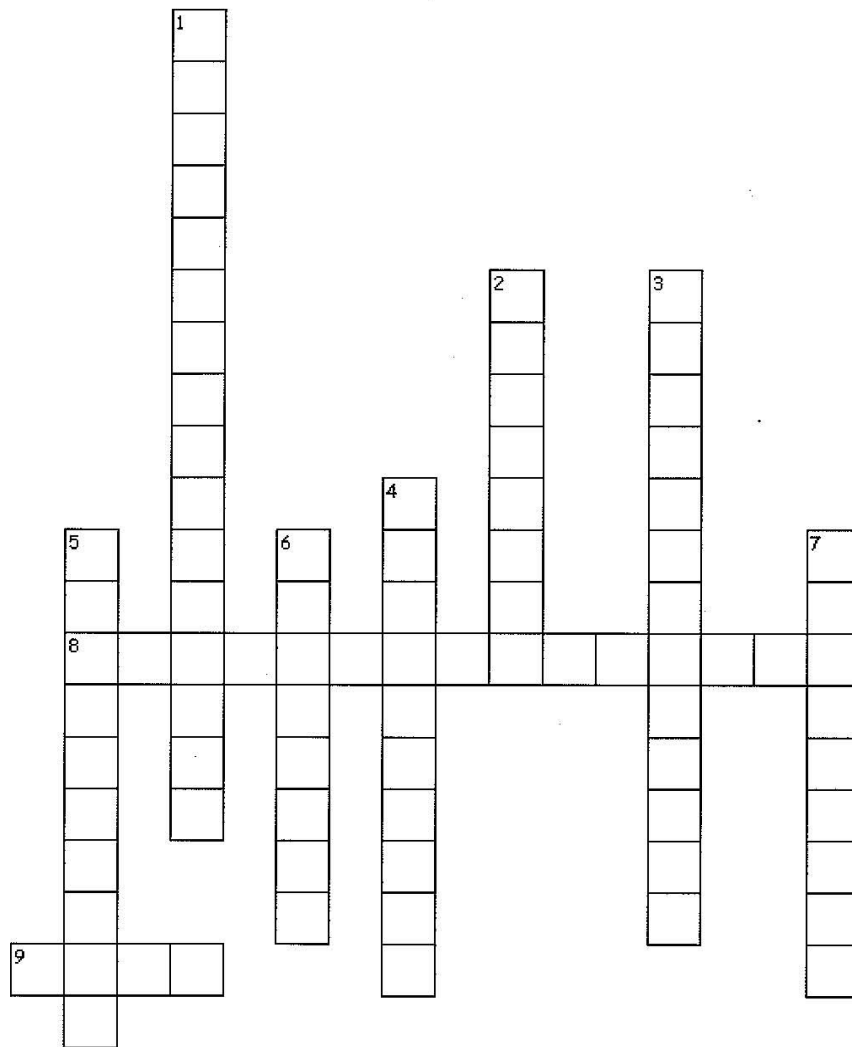


This guide was prepared to help local road agency maintenance workers understand the importance of maintaining and upgrading drainage features on their road system. Storm water that stands or ponds on the road surface and shoulders can contribute to crashes. It can cause hydroplaning under water conditions and skidding under icing conditions. Water run-off can deteriorate the shoulder, side slopes, and reduce the effectiveness of safety hardware (guardrails, sign posts, etc.) This guide identifies typical drainage problems and suggests corrective measures to improve safety. Download this guide at: http://safety.fhwa.dot.gov/local_rural/training/fhwasa09024/



I knew it, we should have replaced that drainage culvert

Test Your Knowledge



Across

8. These signs prevents roadway departure by bouncing light from vehicles headlights
9. Used by FHWA to compute statistics on roadway departure crashes

Down

1. A non-intersection crash which occurs after a vehicle crosses an edge line or center line
2. During the normal paving process, pavement edges are formed in this direction
3. An effective countermeasure for preventing roadway departure crashes
4. This is an asphalt paving technique
5. Curves that change the alignment or direction of the road
6. One of the two main applications of rumble stripes
7. Number of minutes a lane-departure fatality occurs

9 of 9 words were placed into the puzzle.

LTAP Lending Library

Maximize Resources and Improve Training with the LTAP Lending Library

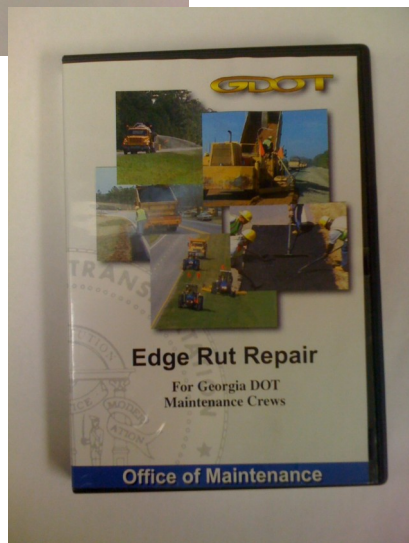
Take advantage of the LTAP lending library for hundreds of resource materials. The library is an excellent FREE source state and local government agencies. Use our video and other materials for you in-house training programs.

NEW VIDEO TITLES



Roadway Safety +
A Road Construction Industry Consortium Training Program– Multiple languages, interactive modules on temporary traffic control design, in-depth training on night work and much more.

Operators Pre-Start Motor Grader Inspection (DVD)- Promotes motor grader safety and productivity for county and city road agencies



This two-part award winning video provides a basic introduction to edge rut repairs, describes the resources needed to perform this activity efficiently and safely.



Are You With Me?
Common Courtesy On The Phone

See more titles at: www.dot.ga.gov/doingbusiness/trainingresources/Documents/LTAP/Videocatrev1119.pdf



Working with Georgia Cities and Counties to Improve Transportation



GEORGIA DEPARTMENT OF TRANSPORTATION
LOCAL TECHNICAL ASSISTANCE PROGRAM
276 Memorial Drive SW
Atlanta, GA 30303-3743

Postage

Georgia 'Super Speeder Law'

Speeding Will Cost You! That's the new phrase being used all around Georgia because Georgia House Bill 160, dubbed the "Super Speeder Law," went into effect January 1, 2010. The new law is designed to decrease the number of speed-related crashes, injuries and fatalities statewide by punishing offenders with additional penalties. Under the new law, motorists traveling 75 mph or more on any two-lane road or 85 mph or more anywhere in Georgia will be classified as super speeders and be required to pay a \$200 state fine, administered by the Georgia Department of Driver Services, in addition to the jurisdictional penalty assessed by the ticketing officer. The money will go to trauma centers across the state. The Super Speeder fine will not be noted on the original ticket. Though law enforcement likely will tell motorists about the increased fines, formal notice will come from the state's Department of Driver Services. The DDS will have to wait to receive notice of the ticket from local officials, which is supposed to be done within 10 days of the ticket being paid or a court conviction. Then the Department has 30 days to notify the driver of the additional fine by mail, and the driver has 90 days to pay it. If the fine isn't paid by then, an additional \$50.00 fee will be imposed and the driver's license will be suspended. The legislation will also address habitual viola-

tors who lose their license because of dangerous driving behaviors. There will be an additional \$300 fine for license reinstatement for DUI, vehicular homicide, serious injury by vehicle, or feticide by vehicle. There will also be an additional \$200 fine for license reinstatement for racing, fleeing and attempting to elude, and leaving the scene of an accident (all currently receive an automatic suspension) and an additional \$100 fine for license reinstatement for other moving violations (in addition to the \$210 current fine). Fines will also be assessed based on the number of points accrued against a driver's license: \$100 fine at 7-9 points; \$125 fine at 10-12 points and \$200 fine at 13-14 points (the license is suspended at 15 points). Preliminary estimates show the Super Speeder legislation could generate as much as \$25 million to \$30 million per year. The additional fees, after administrative costs, will go to the state's general treasury with the intent that the money will be used to fund a trauma care system.



NEW SUBSCRIBER OR UPDATE YOUR INFORMATION

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Organization _____

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Comments: _____

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CUT OR FOLD AND TAPE IF INCLUDING COMMENTS

ABOUT THE CONTENT OF GEORGIA ROADS....

I find the writing to be (check one below):

_____ too technical _____ not technical enough _____ at the technical level I want

I rate the appearance to be (check one):

_____ not appealing _____ not clear enough _____ appealing _____ clear

Rank the following subject areas from 1 to 6 in order of importance to you:

One being the most important

_____ Research _____ Technology and Engineering _____ Innovative ideas

_____ APWA membership news _____ Maintenance _____ Questions and Opinions

I feel this newsletter (check all that apply)

_____ keeps readers up to date on innovation, technology, and maintenance

_____ provides me with useful information of local interest

_____ provides me with useful in my job

Comments: _____

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GEORGIA ROADS

Is a technical newsletter about local roads published by the Georgia Department of Transportation Local Technical Assistance Program. It is written for Georgia's municipal and county employees who are responsible for planning and managing local roads. All your comments, questions, and suggestions are welcome. Please call us toll free at 1.800.573.6445.